Author: Bingham, Arthur Barnes

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AN ACTIVITY ANALYSIS OF THIRTY-TWO TEACHERS OF VOCATIONAL AGRICULTURE IN PENNSYLVANIA FOR THE PURPOSE OF DETERMINING METHOD, CONTENT, AND GENERAL TRENDS

A thesis presented as partial fulfilment of the requirements for the degree of Master of Science in Rural Education in the Graduate School of The Pennsylvania State College.

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AN ACTIVITY ANALYSIS OF THIRTY-TWO TEACHERS OF VOCATIONAL AGRICULTURE IN PENNSYLVANIA FOR THE PURPOSE OF DETERMINING METHOD, CONTENT AND GENERAL TRENDS

Chapter I

Introduction

Problem Stated

The Smith Hughes Law was passed in 1917 which had for its purpose the encouraging of the teaching of agriculture and home economics in the secondary schools of the United States. Since federal, state, and local funds are expended in this program and since a great variety of men and women with varying degrees of experiences, education, and philosophies have taken part in this movement it is only natural that until more time has elapsed there will be a wide variation in modes of teaching, types of exercises used and emphasis. It is the purpose of this thesis to study the trends of teachers in vocational agriculture in Pennsylvania as indicated by 32 teachers, to determine the content and general methods used to attain the desired results, and to ascertain what other activities the vocational teacher apparently feels are part of his job.

Technique in Making Study

The method used in securing data for this study consisted in offering to the teachers of vocational agriculture the opportunity of enrolling in a two credit graduate course called Agriculture Education 503 (Synopsis, of course, in appendix). To earn credit in this course, the teacher agreed to fill out blanks (See appendix) with all of his daily activities either directly or indirectly connected with his job for six months.

This offer was made during January 1926 and by February 8, 40 teachers were enrolled. These were made up of county vocational teachers, vocational directors and supervisors and assistant supervisors, and were considered as a group typical of the agricultural teachers of Pennsylvania.

Not only was the time consumed in each piece of work listed on these blanks, but the number of pupils taught, methods used in the learning exercises and the amount of time necessary in preparing for each lesson and if an auto was used either in securing material or in visiting farms of pupils, that time was also reported.

Great effort was made to have all teachers interpret their duties in the same way. Instruction sheets (See appendix) were sent out when the study started, followed by further instructions from Prof. H. G. Parkinson and Prof. C. E. Myers. It was also found necessary for the writer to send out many personal letters so that everyone concerned would be doing the same kind of work.

Finally after 32 teachers completed 150 working days (6 days a week) the data was assembled and tabulated by Mr. C. E. Cronemyer, a clerk in the Department of Rural Education.

Terms Defined

For the purpose of this study the following terms are defined. These definitions were made with the advice and suggestions of Dr. C. E. Myers, Prof. of Agricultural Education at the Pennsylvania State College, at the time this study was started.

a. "Curricular Work" should include all work in, or growing out of, regularly organized classes for which the school holds you responsible. It may include: Classroom work, project supervision, coaching basket ball or glee club, individual conferences growing out of class work; in other words, all activities in which you as a teacher come in contact with persons formally enrolled as students under you. Organized short-unit, evening and part-time classes come under this head.

b. "Extra-curricular Work - Meetings" should include all meetings of two or more other persons which you attend, which meetings are not regularly organized as classes under your complete or partial direction as teacher. e.g., Attending meetings of the Grange, speaking before Parent-Teacher Association, attending basket ball game which you did not coach, etc.

c. "Extra-curricular Work - Miscellaneous" should include all work you do not list under the other two heads.

Recitation: (Rec.) Any classroom exercise upon a prepared assignment of new material.

Note: The exercise may be "question and answer", general discussion, presentation of

prepared reports by students, or a combination of these. It may be oral or written.

Laboratory: (Lab.) An exercise in which the student verifies or discovers facts with the aid of apparatus and materials, or manipulates tools and materials, or data in a new or improved manner.

Note: Previous preparation is not essential, for ordinarily the student is given new or important facts and a suggested method of procedure. The discovery of facts is practically a negligible phase of high school laboratory work.

Shop Laboratory: (S.Lab.) Class procedure when time due another subject is given to mechanical work in shop or field.

Note: When properly correlated courses are offered in "Farm Mechanics" this type of class exercise will be very rare, for the mechanical work needed for all the classes in agriculture will be anticipated and supplied by the class in "Farm Mechanics". As this ideal condition does not always exist, the class studying "Plowing" may be forced to sharpen a plow, make a single-tree and repair a hame-string before it can continue its study.

Field Laboratory: (F.Lab.) Any laboratory exercise outside the school building other than Shop Laboratory.

Supervised Study: Classroom study of printed matter when the teacher is <u>constantly alert</u>, aiding and directing the students in their efforts.

Note: When the teacher makes an assignment and then goes about other duties, reading, keeping order in the classroom, writing, etc., the time is devoted to "study" and not "Supervised Study".

Demonstration: A class exercise in which the teacher or some other skilled person teachers by explaining the various steps of a job while performing it in full view of the entire class.

Note: When the students give a demonstration before the school or community, etc., the exercise is practice for the students, as they have previously learned the job, and should be recorded as "Drill".

Field Demonstration (F. Dem.): Any demonstration that takes the class out of the school building.

Observation (Obs.): A class exercise devoted to systematic inspection or seeing away from the school building.

Note: This is not a teaching exercise but one for collecting notes and facts upon which to base subsequent teaching. Observation is always a "Survey" of something in so far as collecting data is concerned. "Survey of X, Y. or Z" is a "subject" and the class time devoted to it is divided among the various forms of class exercises, such as: Obs., Lab., S.St., etc.

Scoring (Sc.): Systematic judging or measuring according to an ideal standard.

Note: Scoring may possibly be twisted into a subject for a classroom recitation, lecture or supervised study, but this is seldom justifiable in a vocational agricultural class. All that needs to be taught about scoring is best done with the objects to be scored at hand. Classroom instruction in breeds and types or characteristics should be listed as such and not study of the score card, even if the score card is used as the text reference.

Lecture (Lec.): A form of classroom procedure where the teacher tells the class facts, which facts are especially organized by the teacher for that purpose.

Note: A lecture is formal and should not be called such unless it consumes 15

minutes or more. The lecture has little place in teaching high school agriculture.

Review: (Rev.) — Any classroom exercise upon material previously presented in class.

Note: The purpose of a review is to clear up any hazy or erroneous ideas of the students and make sure that they see the principles learned in their true proportions and relations, and thereby strengthen their retention powers. A review differs from an examination in that a review organizes and reteaches.

Drill: — Practice in the use of previously obtained information or ability.

Note: Drill is essential if the student is to retail what he learns. Drill is also necessary for the development of skill.

Field Drill: (F.D.) — Any "drill" which takes the class out of the school building.

Examination: (Exam.) — Any "quiz" or "test" for the purpose of scoring students' information.

Summary

It would seem that 32 teachers from about 100 in vocational agricultural in Pennsylvania would be a large enough sample to give data for general conclusions. It seems, too, that reasonable care has been taken to insure accurate data as shown by the forms used which are exhibited in the appendix.

Chapter II

Specific Inherent Teacher Problems

Difficulty of Determining the Teaching Emphasis

The rural population and agriculture of the United States has been undergoing rapid changes during the last two decades. Each year brings about new machinery development, new methods of farming, improved feeding ideas, and new fields of competition not only for the services of youths on the farm but new competitors with agricultural products to sell, making it increasingly difficult for our farms to remain profitable.

It has been stated that Pennsylvania probably comes very nearly being in a "depression proof area" as far as agriculture is concerned. But even here the trend of people away from farms and into cities is marked. A statement released by the Pennsylvania Department of Agriculture, October 2, 1930, says: "The expansion of urban centers, abandonment of submarginal farms, construction of golf courses and air ports and the conversion of favorably situated farms into county estates have been primarily responsible for a reduction of 52,202 in the number of farms in the commonwealth since 1900." However, though we have lost farms we have increased the total amount of agricultural products as shown by Table I.

Table I

Trends in Agricultural Production in Pennsylvania

1884-1924(1)

	1884		1924	
	Acres	Production	Acres	Production
Corn	1,312,820	44,069,600	1,481,620	62,383,400
Winter Wheat	1,381,700	20,527,000	1,196,560	22,514,800
Oats	1,274,100	35,029,100	1,106,950	37,003,100
Potatoes	187,410	14,560,200	224,410	25,884,300
Hay	3,019,260	3,559,900	2,937,240	3,871,100

Increased means of better and faster rail and auto transportation has brought to our Pennsylvania market products heretofore raised largely at home. As an example of this, may be sighted the selling of Maine potatoes on the Pittsburgh market in preference to the Pennsylvania grown stock. This was due largely to quality. Hard roads are now available throughout the state and when the road program of the present administration is complete towns and cities will be within very easy traveling distance of all of our rural population at least in the better farming sections of the state. This will mean that increased opportunities will be given to rural boys to live at home and travel back and forth to work in cities, towns, and villages. It is the writer's feeling that these changes offer a challenge to all workers dealing with

(1) Johnson, G. F., Agriculture in Pennsylvania; Pennsylvania Department of Agriculture, Harrisburg, Pa., 1929 P. 52-58.

rural youth, to organize their work in such a manner that it will function in the lives of farm boys so that the boys of better managerial ability will find a satisfying social and economical life on the farm, and only those less adopted through temperament and ability will leave.

The Figure I and Figure II[2] below supplied by L. F. Kinney, Jr., State Club Leader of Rhode Island, shows what two trends may be taken by farm youths under a satisfactory and unsatisfactory condition of farm life.

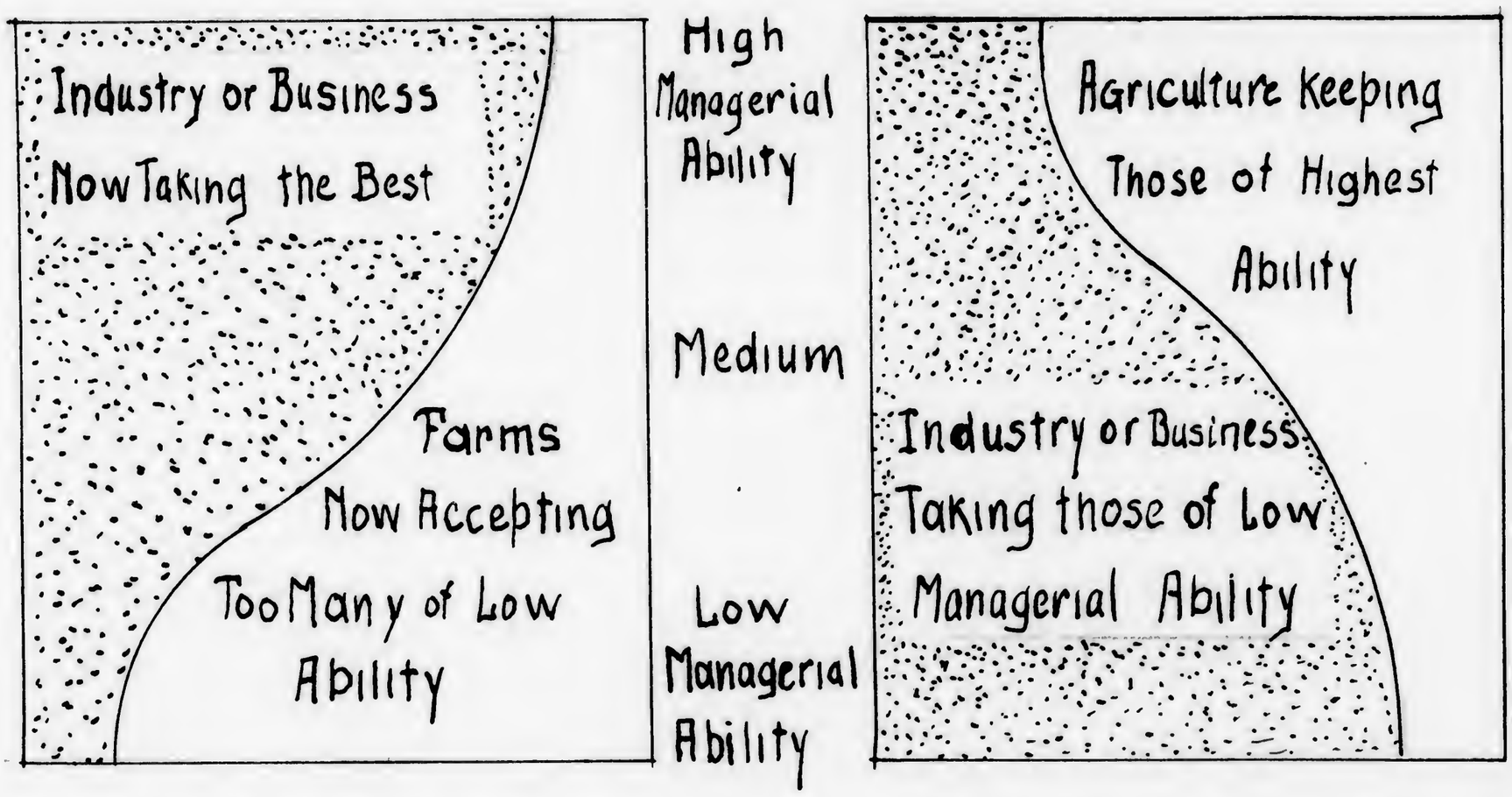

Figure I

Figure II

Present Tendencies of Farm Youth

Desired Tendencies of Farm Youth

(2) Kinney, L. F., Jr., Selecting Future Farmers and Guiding Them in Becoming Established, Kingston, Rhode Island, 1931.

Teaching Sequence Should be Seasonal

A teacher of vocational agriculture finds that he has about 30 weeks each year in which he must do the systematic classroom instruction required by the Smith Hughes. In other words, his classroom instruction will run from about September 1 to June 1.

He naturally will want to organize his work in such a way that it will make learning on the part of the pupil most effective. To do this, he must take into account four factors. First, he must move from the known to the unknown so as not to confuse the student with abstract ideas before he is ready for them. Second, there are times during the winter when field practicums will be extremely impractical on account of the season. Therefore, he will want to fill in this time with experiences for his pupils which do not necessitate trips, field demonstrations, etc. In the third place, it is an accepted psychological fact that young people learn fastest and easiest when a need is felt for information to solve a problem and when it can be used over and over again immediately. This means in vocational agricultural teaching that instruction should be given just before facts learned are to be used either on the home farm or in the pupils home project. An extreme illustration of poor seasonal sequence would be the teaching of the care of laying pullets for winter production during April. Before a pupil would have an opportunity to put the information gained into practical use, it will have

sunk into his subconscious mind and must be recalled with effort and loss of efficiency. Lastly, a teacher should organize his work so that it will require a minimum of effort to secure teaching material. As an illustration of this, the teaching of methods in selecting samples of potatoes for a winter exhibit. If this is taught in the spring it will necessitate the storing of potatoes during the winter while if it is taught in the fall, quantities may be secured in the field for this selection.

The Monetary Aspect of Secondary Vocational Agriculture

Recently the staff of the 4-H Club Department made a survey of portions of five counties. These counties were picked because they were representative of the various types of conditions rural boys and girls find themselves in Pennsylvania. An effort was made to reach every child between the age of 10 to 20. From a preliminary study it was found that 25 per cent of the group interviewed, reported owning animals or poultry with an average value of $91.00 per individual. Twenty-one and six tenths per cent owned motorcycles, automobiles, or other equipment valued at $73.00, while 12.5 per cent owned guns, traps, radios, or other property with an average value of $33.30.

It was also found in this same survey that 29.0 per cent of the boys and girls listed farm enterprises such as livestock, poultry, or truck crops as belonging to them. Thirty-nine per cent reported earning money through non-farm enter-

prises such as working on roads, factories, domestic service, etc., and 66.4 per cent reported dependence upon parents for spending money. Of the boys and girls reporting in this survey 48 per cent answered that they had bank accounts in their own names, although no attempt was made to ascertain the amount.

From three standpoints it would seem as though it would be good policy for vocational agricultural teachers to build their instruction and especially the project of their pupils around those practices that will put money in the pockets of their students. From the preceding paragraph it will be seen that a large proportion of the boys in the territory surveyed do not have ready money nor do they have any great amount of property. It is a good educational experience for an adolescent boy to have the opportunity of handling his own money. He will gain ability in handling his own affairs in after life if given a chance while in school. It is also a fact that if we are to attract boys who have high managerial ability to stay on the farm, they must be shown that they can make a satisfactory income. This can only be done by giving them instruction in those phases of agriculture which will likely be most profitable in their community and then doing everything possible to have them really own their own projects. Probably in Pennsylvania because of our nearness to market and the demands of our trade, the products should have the following characteristics: high quality, perishable, and bulky farm products.

The Importance of the Social Aspect of Rural Life

With the decrease in the number of farms and the number of children on the farm it has been increasingly difficult for farm boys and girls to find a wholesome social life within their own community. Old forms of amusement cease to amuse, and commercialized entertainment has largely taken the place of some of the better of the old community activities.

In the survey mentioned before, the question was asked, "Is there enough social activity in your community to meet your needs." Forty-six and four tenths per cent answered yes, thirty-nine per cent answered no, and the remaining failed to answer.

The impression of the investigators was that there was too little social activity in some communities, sufficient in some and too much in others. With anyone of these situations may be found individuals who may have too many or too few social contacts.

The question was also asked, "Which organization meets or fails to meet your social needs in your respective community." Sixty-eight per cent listed the following organizations as meeting their needs:

Organization	Per Cent
School	33.6
Church	28.3
Sunday School	13.6
4-H Club	13.6
Grange	6.8
Scouts	2.7

From the 33 per cent who answered that various organiza-

tions did not fill their needs, the following table shows the per cent of times each organization was mentioned:

Organization	Per Cent
Church	44.1
Schools	21.6
Grange	11.8
Scouts	14.7
Sunday School	6.9

While no claim is made that this data is conclusive it is an indication that in some communities at least there is a lack of social contacts made through organizations. Leadership is needed to compete with some of the less desirable commercial entertainment. Vocational agricultural teachers can and should supply this need for leadership in the communities which they serve.

Importance of Method and Technique

The technique and methods used to accomplish the aims have been continually changing. We have passed through periods where little or no attempt was made to do much more than lecture to our high school pupils in agriculture. During this time there were few, if any, textbooks available which were written for adolescent boys. Books such as were available were highly technical and were intended for college students. In the early teaching of secondary agriculture it was thought highly desirable to have connected with the school a plot of ground so that the pupils could experiment with such things as fertilizers and seeds. It was also thought that this plot could be used as a model for farms in the community.

After experience with this sort of a proposition it was generally the opinion that these plots were correctly named where they were called "Hell's acres". It was found that the students felt no responsibility for them and exhibited little interest. They were generally too small to be successfully worked with modern machinery and this method of teaching has to a very large degree been abandoned.

It is now generally conceded that the pupil "learns by doing" and that it is the self activity of the student that educates him.(3)

The modern thought on transfer of training is stated by Starch when he says that "The transference of training of the capacities involved in the learning of school material is very small so far as present partial data indicate. This seems to be equally true of all school subjects, the sciences as well the languages and mathematics. If we represent the possible transfer effect as ranging from 0 per cent, or none, to 100 per cent, or an improvement in other capacities equal to that in the capacity trained, then the amount of transfer is much nearer to the 0 per cent end than to the 100 per cent end. It probably is 0 or very near 0 for all capacities which are not distinctly similar or related to the capacities specifically trained . . . it is obviously more economical to give practice directly to the capacities which we want to train

(3) Schmidt, G. A., Projects and the Project Method in Agricultural Education, The Century Company, New York, 1926, p. 11.

rather than to do it indirectly with the hope that improvement may be transferred to them.(4)

If we accept these two modern ideas on education and apply them to vocational education it will be necessary for us to scrutinize our methods of teaching so as to eliminate as far as possible those methods which do not permit of whole hearted purposeful activity on the part of the pupil. It will also be necessary for us to use only those exercises as will put the boy into situations such as he may meet in the vocation he is studying. Fortunately, during the last few years, textbooks, reference books, laboratory exercises, and shop work have been written and developed in secondary vocational agriculture so that the teacher and especially the new teacher is not now entirely dependent on his own initiative in choosing his methods and material.

Summary

Because of the situation Pennsylvania bears to the urban population of the United States, it would seem as though farmers in this state have an opportunity which is unsurpassed. Boys entering vocational schools need training not only for a vocation, but they also have problems in health, citizenship, and in social inter-communication. If a vocational teacher is to meet these demands he finds that he has a multiplicity of jobs to perform. In order to most effectively teach vocational agriculture the teacher must use material which

(4) Starch, Educational Psychology, The Macmillan Co., New York.

qualifies as to regional fitness and it must be taught very near the time when it can be used on the home farm. Since there is only a limited time in which the instructor can use in classroom instruction, only those methods and technique which promote whole hearted purposeful activity can be recommended. If the boys with the best managerial ability are to be encouraged to stay on the farm, it is necessary that the instruction should show the possibility of sufficient monetary return so that he can head a satisfactory social life.

Chapter III

An Activity Analysis of the Teacher's Time

The Vocational Teacher Performs a Multiplicity of Jobs

When a teacher of agriculture goes into a vocational school to teach he finds himself in a unique position. Often he is the only teacher in the school who is employed for the entire 12 months. It generally happens that he is better paid than the other teachers in the school and often receives more than the principal. He visits the projects of his pupils and gets to know not only their parents but the home conditions with which the boys and girls have to contend. It also sometimes happens that through his junior project work he comes in contact with boys and girls of less than high school grade. These factors build up a situation which tends to make the Smith Hughes teacher stand out from the rest of the teachers in the school system.

Therefore, it is natural that on his shoulders will fall responsibilities that are opportunities, but may, if not watched carefully, take up so much of his time as to become real handicaps.

In order to secure an indication of just how much time is being consumed by outside activities, the time schedule for teacher No. 4 was tabulated for the month of April.

Table II

Curricular Activities by Teacher No. 4 During April

	Time Teaching	Time Prep.	Time on Record
Animal Husbandry	700	330	40
Farm Crops	880	220	95
Farm Shop	1260	280	
Marketing	600	360	
General Science	495	320	
Proctoring Study Hall	780		
TOTALS	4715	1510	135

Other Activities of Teacher No. 4 in School Hours During April

Fire Prevention Demonstration	60
Singing	90
Photography	220
Correcting papers	310
Cleaning	80
Reports	120
Project supervision	150
Jr. Project supervision	100
Preparation for School Exhibit	285
Make up class	120
TOTAL	1535

Table III

Extra Curricular Meetings Attended
by Teacher No. 4 April 1926

Meeting	No. Attending	Length of Meeting	Time Prep.	Activity or Participation
Civic Association	14 600	120 150	30 60	Secretary Entertainment
Boy Scout	82 18 200	660 180 150	140 30	Scout Master Pageant Rehearsal Pageant
Basket Ball	700	90	60	Attendance
Radio Program by School	11	60	10	Attendance
Faculty	9	180		Attendance
Parent Teachers	125	120		Attendance
School Board	7	30		Attendance
Jr. Class Entertainment	200	60	60	Attendance
Senior Girls Supper	10	90		Attendance
Junior Musical	300	150		Attendance
Fashion Show Home Making Department	250	120		Attendance

Miscellaneous Extra Curricular Activities

Activity	Prep.	Service	Road	Type of Service
Scouts		1040 60 30 30	180 40 25 40	Prep. for Pageant Notifying Members Banking Errands
Correspondence		100		

Table III (cont'd)

Miscellaneous Extra Curricular Activities (cont'd)

Activity	Prep.	Service	Road	Type of Service
Professional Improvement		160		
Delivering Certified Seed Potatoes		60	60	
Sunday School Lessons	210			
Assistance in Making Entrance Exam.		390	60	
Putting up Score Board in Gymnasium		110		Assistance
Assisting Faculty Member		60		
Office Routine		110		General
Mimeographing		210		
Civic Association		55		Aid in Ticket Sale
Pruning Trees	20	600	60	For Community
Completing Memorial Light Standards		120		

Time used in activity - - - - - - - - - -5295 minutes

Time used in preparing for activity - - - 270 minutes

Time used on road for activity - - - - - -525 minutes

TOTAL -6090 minutes

The month and teacher were picked at random but were considered by those connected with this study to be representative of the teachers of Pennsylvania.

From this data it will be seen that during the month teacher No. 4 spent 4715 minutes in teaching of agricultural subjects and 1535 minutes in other activities during school hours or a total of 6250, or 104 hours and 10 minutes. If it is assumed that he taught 21 days during April it will be seen that his teaching time averaged slightly less than five hours a day. It will also be observed from this table that he felt it was necessary for him to prepare himself in order that he might do a good job of instruction. This preparation took 1510 minutes, or an average of 1 hour and 11 minutes a day. If the five hours used for instruction and the 1 hour and 11 minutes are added together, the curricular duties took up approximately 6 hours and 11 minutes a day. This in itself might be considered too heavy a load for a secondary agricultural teacher. However, it would mean a full day with little or no opportunity for rest.

Because of his position either as a teacher or because of his interest in the welfare of his community, teacher No. 4 took part in community activities as shown by Table No. III.

From a study of Table No. III it can be seen that his participation in the activities listed varied a great deal. In some activities he took a very active part, necessitating considerable preparation. Other activities he simply attended which, of course, made no demand on him except his time.

The total amount of time he spent in these activities was 5295 minutes in the activity, 270 minutes in preparation, and 525 minutes on the road with his auto, or a total of 6090 minutes, or 101½ hours. Since Saturdays come into this calculation, it is evident that to find the average per day it will be necessary to divide the time spent per month by the number of days in the month less the Sundays which would be 26. This would indicate that teacher No. 4 was busy on an average of 3 hours and 54 minutes or practically four hours each day on some activity not directly connected with his curricular duties.

If this time is added to the time spent in curricular activities he will be consuming approximately ten hours a day during the school week and four hours on Saturday. It will be noticed that only 250 minutes are listed for project work during the entire month. It would seem to the writer that if teacher No. 4 had organized his work so that it would have been necessary for him to carry a heavy load of project supervision, he would have been compelled because of time limitations to choose between this kind of activity and his project work. Since it is generally accepted today that the vocational project is the keynote to good vocational teaching then, if a choice is necessary, the project should be selected even though it necessitates sacrificing some of the other lines of activity.

Teachers of Pennsylvania Use Seasonal Sequence

In the previous chapter the desirability of teaching

along the lines of seasonal sequence was discussed. To discover whether the teachers are actually following this desirable practice the data concerning subject matter taught in poultry was tabulated by months beginning in February and continuing throughout June or until school closed. The poultry course was used for this study because, first, it is generally taught in the Freshman and Sophomore years and would therefore be used by a maximum number of teachers; second, because the poultry industry is of paramount importance in Pennsylvania, and, lastly, because with vocational students, poultry projects are popular. It will be seen that in Table IV the subjects taught by months are listed, also the number of teachers teaching these jobs, number of pupils in class, and the method used in the teaching exercises.

It is admitted that some of the data is hard to interpret so that we may understand just what is meant and will therefore be left out of the discussion. An example of this is the first item "Poultry Husbandry" as taught by six teachers to 81 pupils. There is here no indication as to what these six teachers actually taught. However, there is enough accurate data to secure a good picture as to whether or not Smith Hughes teachers are using seasonal sequence or whether it is a good theory but is neglected in practice. It must be further understood that there is considerable variation in climate in Pennsylvania which would naturally bring about some variation in the time when a given subject should be taught. It does not seem to the writer that this condition

Table IV

Distribution of Time in Poultry Husbandry
by the Teachers Studied

February

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Lab.	Trip	Vis.	Dis.	Dem.	Drill
Poultry Husbandry	6	81	410	220	10	140	150						
Nomeclature of Fowl	1	6	20	30	10								
Anatomy of Fowl	2	45	60	20			20						
Poultry Identification	1	12									160		
Incubation	5	109	250	50	110		10				30	20	40
Setting Incubators	1	25					80						
Incubators	3	68	420	300		60	110	130			110		70
Incubator Management	3	47	140	130		10	10						
Care of Eggs	1	25									80		
Formation of Eggs & Chicks	2	43	40	20	10		20	50			10		
Brooding	2	42	90	40									

Table IV (cont'd)

February (cont'd)

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Lab.	Trip	Vis.	Dis.	Dem.	Drill
Brooding Houses	1	2						440					
Care of Chicks	1	12	100	140	30							50	80
Poultry Breeding	4	58	350	250	40	40		90					
Poultry Houses	6	75	150	180	110		60	310			20		80
Care of P. Houses	1	26	30	20									
Poultry Feeds	1	14		70		40							
Culling	1	6	60		110								30
TOTALS	40	708	1460	390	430	410	460	1060	0	0	410	70	300

Table IV (cont'd)

March

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Trip	Vis.	Dis.	Dem.	Drill	Lab.
Poultry Husbandry	9	144	720	560	120	180	160	130					40
Anatomy of the Fowl	2	32	40	40		20							
Poultry Incubation	11	307	250	50	110	10				30	20	40	
Setting Incubators	2	27	210	40									210
Running Incubators	2	33	50	110									200
Visited Inc. with class	1	18									250		
Egg Selection	2	25											80
Formation of Egg & Chick	1	18	40	20	10		20			10			50
Testing Brooders	1	25											50
Care of Brooders	3	59	20	50									530
Care of Chicks	5	117	340	220						220	120	80	460
Physiology of Fowl	1	18	30	30									
Egg Accounts	1	30			40					100			

Table IV (cont'd)

March (cont'd)

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Trip	Vis.	Disc.	Dem.	Drill	Lab
Poultry Nests	1	25	40										
Summer Management	1	17	30	40									
Poultry Breeding	4	51	220	220		70	30			140			90
Poultry Houses	3	47	270	90			50					30	
Inspection by Class of P.H.	1	11						120					
Poultry Rations	3	37	120	140						30		20	130
Breeds of Poultry	1	16	30							10			
Culling	1	6	60	100									
Poultry Judging	1	16	40	200	20		60						80
Poultry Troubles	5	84	130	200			20					40	220
TOTALS	65	1163	2640	2110	180	190	310	280	130	540	390	210	2260

Table IV (cont'd)

April

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Lab.	Trips	Vis.	Disc.	Dem.	Drill	Assn.
Poultry Husbandry	12	177	970	930		170	340	470	190		70	90	290	
Poultry Incubation	10	167	210	350	40	70	50	210	30	30	200	30		
Incubators	4	69	80	90	30			160			20			
Care of Eggs	2	31	130	30			20					30		
Formation of Egg & Chick	1	15	30					30						
Brooding	1	24	120	150				160	110		40			
Brooder Houses	2	24			80	30								
Care of Chicks	3	58	40	50							50	120		
Fattening Broilers	2	37	80	20										10
Poultry Sanitation	2	55	80	40									40	
Poultry Rec. & Accounts	2	28	100	60		60		220						30
Poultry Advertising	1	12	20	20				120			60		20	

Table IV (cont'd)

April (cont'd)

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Lab.	Trips	Vis.	Dis.	Dem.	Drill	Assn.
Poultry Breeding	1	5	100											10
Improving the Farm Flock	1	9	50								10			
Poultry Houses	1	16	80	150			120				50			
Poultry Equipment	1	5	40	20										
Poultry Feeds	5	79	310	530			10	280						10
Poultry Breeds	1	11		60							30			
Poultry Marketing	2	43	310	130		50		150						
Market Types and Classes	1	23	40											
Judging Poultry	1	12		80	40							40		
Poultry Disease	7	140	500	240			20	220					40	
Caponizing	1	23	40											
TOTALS	64	1063	3330	2950	190	380	820	2140	330	30	530	310	390	60

Tabe IV (cont'd)

May

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Lab.	Trip	Vis.	Dem.	Drill	Dis.	Assn.
Poultry Husbandry	16	253	1060	1300		910	1160	410	440	40			190	
Poultry Incubation	1	24			20		40			10			20	10
Incubator Management	1	25		20			20							
Care of Eggs	1	5						90						
Brooders	1	24		20							20			
Brooding Chicks	1	18						60						
Care of Chicks	1	6						180						
Poultry Breeding	1	5	50	40										10
Poultry Houses	1	13	40											
Poultry Feeding	2	32	120	20	40		40							10
Poultry Rations	1	12												80
Breeds of Poultry	1	18	60	70										

Table IV (cont'd)

May (cont'd)

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Lab.	Trip	Vis.	Dem.	Drill	Dis.	Assn.
Poultry Marketing	4	84	310	130		50		150						
Market Types and Classes	1	16	120	60										
Culling (good)	1	18						150						
Poultry Judging	3	54	130	160					140					
Poultry Troubles	4	95	40		60	50		30				40	80	10
Caponizing	2	45	270	70					80	20				
Dressing Chickens	1	18	30	30										
Preparing Birds for Exhibit	2	460	140	200										
TOTALS	46	1225	2370	2120	120	1010	1260	1070	660	40	40	290	120	50

Table IV (cont'd)

June

	No. Teachers	No. Pupils	Rec.	Study	Lec.	Rev.	Ex.	Lab.	Trip	Vis.	Dis.	Dem.	Drill
Poultry Husbandry	5	103				270	470						
Care of Chicks	1	24		30							20		
Securing Chick Feed	1	1						20					
Poultry House Illumination	1	4						40			60		
Breeding Poultry	1	24	20	60									
Marketing Poultry	1	29				50							
Culling	1	12										90	
Poultry Judging	5	42						1070					780
TOTALS			20	90		320	470	1130			80		780

is serious in interpreting these data since some leeway must be allowed.

One of the first things that is impressed on your attention is the wide variety of jobs used each month. For example, in February the following teaching exercises were used by only one teacher: Nomenclature of the Fowl, Poultry Identification, Setting Incubators, Care of Eggs, Brooding Houses, Care of Chicks, Care of Poultry Houses, Poultry Feeds and Culling. In March, Visited Incubators with Class, Formation of Egg and Chick, Testing Brooders, Physiology of Fowl, Egg Accounts, Poultry Nests, Summer Management, Inspection of Poultry Houses, Poultry Breeds, Culling, Poultry Judging, and Poultry Troubles were taught only by one teacher each. During April one teacher each taught: Formation of the Egg and Chick, Brooding, Poultry Advertising, Poultry Breeding, Improvement of Farm Flock, Poultry Equipment, Poultry Breeds, Market Types and Classes, Judging, and Caponizing. In May there is still more variation in subject matter taught and we find the following taught by only one teacher each: Poultry Incubation, Incubator Management, Care of Eggs, Brooders, Brooding Chicks, Care of Chicks, Poultry Breeding, Poultry Houses, Poultry Rations, Breeds of Poultry, Market, Types of Classes, Culling, Diseases of Chicks. June finds most of the classes disbanding, but we will find the following taught by one teacher: Care of Chicks, Securing Chick Feed, Poultry House Illumination, Breeds of Chickens, Marketing Poultry, and Culling.

With the help of the Poultry Extension Department of State College, an attempt was made to rank these subjects taught as to whether they fell somewhere near the time the students would be using them at home. The items were graded good, fair, and poor. If there was any question in our minds as to where the item should be placed we gave it the benefit of the doubt and placed it in a higher classification or marked with a question mark.

February

Good	Fair	Poor
Setting Incubators	Nomenclature of Fowl	Culling
Care of Eggs	Poultry Identification	
Brooding Houses		
Care of Poultry Houses		
Poultry Feeds		

March

Visited Incubators	Egg Accounts	Physiology of Fowl
Formation of Egg and Chick	Poultry Nests	Summer Management
Testing Brooders	Culling?	Breeds of Poultry
Inspection by Class of Poultry Houses	Poultry Judging?	
Poultry Troubles		

April

Brooding	Formation of Egg and Chick	Poultry Breeding

April (cont'd)

Good	Fair	Poor
Poultry Advertising		Poultry Houses (If for adult birds)
Improvement of Farm Flock		Poultry Breeds
Poultry Equipment		Market Types and Classes
Poultry Judging		
Caponizing		

May

Care of Eggs	Poultry Incubators	Poultry Breeding
Brooders	Incubator Management	Poultry Houses (If for adult birds)
Brooding Chicks		
Care of Chicks		Breeds of Poultry
Poultry Rations		Market Types and Classes
Culling		
Dressing Chickens		

June

Care of Chicks	Poultry Houses
Securing Chick Feed	Illumination
Culling	Breeds of Chickens

It would seem that since the Department of Public Instruction in their Bulletin No. 8 indicates that only two

periods a week should be spent in poultry work during the second semester, that great care should be taken in the selection of material during this period.(5)

Most of the items ranked under poor seasonal sequence undoubtedly should have been pushed back into the fall term. Certainly they have a place in the teaching of secondary vocational agriculture, and the only question raised here is whether or not they could not have been taught at a better time.

The subject matter content of the same course was tabulated on all jobs that were taught by two or more teachers and were tabulated in the same manner.

February		
Good	Fair	Poor
Incuation	Anatomy of Fowl	
Incubators		
Incubator Management		
Formation of Egg and Chick		
Poultry Breeding		

March		
	Anatomy of Fowl	
Poultry Incubation		
Setting Incubators		
Running Incubators		

(5) _____Vocational Agriculture in Pennsylvania, Bulletin No. 8, Department of Public Instruction, Harrisburg, Pa., 1927, page 20.

March (cont'd)

Good	Fair	Poor
Egg Selection		
Care of Brooders		
Care of Chicks		Poultry Breeding
Inspection by Class of Poultry Houses		Poultry Houses (If adult houses)
Poultry Rations		
Poultry Troubles		

April

Poultry Incubation		
Incubators		Poultry Breeding
Care of Eggs		
Brooder Houses		
Care of Chicks		
Fattening Brooders		
Poultry Sanitation		
Poultry Records and Accounts		
Poultry Feeds		
Poultry Marketing		
Poultry Diseases		

May

Poultry Feeding		
Poultry Marketing		Preparing Birds for Exhibit
Poultry Judging		

May (cont'd)

Good	Fair	Poor
Poultry Troubles		
Caponizing		

June

Poultry Judging

These data indicate that when two or more teachers have thought that a piece of material is worth teaching there is more of a chance that it will be placed correctly as to seasonal sequence. Pennsylvania teachers apparently are trying to follow this idea but it is evident that in some instances at least, there is either a lack of appreciation of the importance of the benefits coming from this method of presentation or that there is some careless thinking in including certain jobs which could have been left out nicely or placed in some more opportune place. After carefully studying this analysis of teaching jobs, it would seem that there is a great difference of opinion as to what should go into a secondary vocational poultry course. In light of the fact that there is so little time available and so much to teach that is of vital importance, a very careful study should be made of those factors that make for success in the Poultry Industry. As an example of the need for this study, may be cited the fact that two taught Poultry Sanitation and only seven taught anything on poultry diseases. Yet today, more money is lost by the lack of knowledge on these two items than any other factors.

Distribution by Method of Teaching Time in Poultry Husbandry

In the preceding chapter the importance of method was stressed. The ideal was set up that the method should be such as would stimulate purposeful activity on the part of the pupil. In this section we will discuss the actual methods used by teachers of Vocational Agriculture in Pennsylvania to motivate the material used in teaching Poultry Husbandry. The same data were used as that in the preceding section but has been tabulated differently. Table V gives the total amount of time consumed in each method of instruction by months while Table VI gives the percentage of time used by months.

From both of these tables it will be seen that the three most popular methods of instruction from a time standpoint are the Recitation, Supervised Study, and Laboratory, The recitation as defined by our definition is, "Any classroom exercise upon a prepared assignment of new material. It may be question and answer, general discussion, presentation of prepared reports by students or a combination of these." Probably this is one of the oldest types of instruction and one used in academic as well as vocational subjects. This method has been criticized because it is apt to promote activity on the part of the boy reciting but fails often to stimulate thinking on the part of the rest of the class unless the work is conducted by a very skillful teacher. It will be seen that this method consumes more time than any other method. The percentages run approximately the same except during June

Table V

Distribution of Time in Poultry Husbandry by Methods

	Rec.	S.S. Study	Lec.	Rev.	Exam.	Vis.	Dis.	Dem.	Drill	Lab.	Trip	Total
Feb.	1460	390	430	410	460	0	410	70	300	1060	0	4990
March	2640	2110	180	190	310	130	540	390	210	2260	280	9240
April	3330	2950	190	380	820	30	530	310	390	2140	330	11400
May	2370	2120	120	1010	1260	290	40	40	40	1070	660	9020
June	20	90	0	320	470	0	80	90	780	1130	0	2980
TOTALS	9820	7660	920	2310	3320	450	1600	900	1720	7660	1270	37630

Table VI

Percentage of Time Used in Each Method of Teaching in Poultry Husbandry

Month	Rec.	S.S. Study	Lec.	Dem.	Drill	Vis.	Dis.	Rev.	Exam.	Lab.	Trips	Classroom Work	Field & Lab.
Feb.	29.3	7.9	8.7	1.5	6.0	.0	8.2	8.2	9.3	21.5	.0	79.1	20.9
March	28.6	22.8	1.9	4.2	2.3	1.4	5.9	2.5	3.3	24.5	2.0	72.9	27.9
April	29.3	25.9	1.7	2.9	3.4	.2	4.6	3.4	7.2	17.9	2.9	78.6	21.4
May	25.9	22.9	1.9	.4	.4	3.0	.4	11.3	13.9	11.9	7.5	80.1	19.9
June	1.0	4.0	.0	.4	24.5	.0	3.7	11.9	15.9	38.0	.0	61.4	33.6
AV.	25.9	20.3	2.5	2.4	4.8	1.2	4.2	6.2	8.8	20.3	3.3	76.3	23.6

when it would naturally be expected that the presenting of new material would have been complete.

Supervised study consumed an average of 20.3 per cent of the teaching time. There was a drop in the percentage of time used by this method during February and June. This may be explained, perhaps, by the facts that in February the first semester work has been completed and more time seems to be necessary for review and examination. It is generally conceded that supervised study is one of the most desirable methods of instruction and fits in exceedingly well in vocational training. This is especially true of Vocational Agriculture since so much of the material used must be secured from bulletins and books which are not primarily text books and are, therefore, not available to every pupil all the time. It would seem to the writer as if this method should be given more attention and the time spent should somewhere equal that spent in recitation, lectures, demonstration, visual, and discussion as suggested by the Department of Public Instruction.

When one considers the minor methods of vocational instruction as used by Pennsylvania teachers in Poultry Husbandry, it will be seen by Table VIthat a very small per cent of time is spent in any one of them, although in the aggregate they do amount to 30.1 per cent which is in exeess of the amount of time spent in either recitation or supervised study. It was rather surprising to the writer that more time was not spent in lectures. It was his opinion gained from observation,

teaching experience, and from hearing of the prevalence of this method discussed that this method was used much more than it apparently is. This tendency is to be commended because of the fact that for high school students, it does not promote purposeful thinking on the part of the pupil.

It was equally surprising that so little time is spent on visual instruction. In two months, February and June, not a single teacher used this method and on the average only 1.2 per cent of the time was so used. It would seem that one of three things may account for this. Either the teachers do not appreciate the value of this method, or that the visual material available does not suit Pennsylvania conditions, or that the expense of securing lanterns and slides has prevented some of the schools in poorer districts from securing these aids to interest. State College Poultry Extension Specialists have found visual methods in their demonstrations in poultry sanitation, disease eradication, and other work exceptionally valuable.

One other fact that seems to stand out in the percentage of time used in the classroom is the large proportion of time used by examinations. When all of the months are considered, 8.8 per cent of the entire time spent in instruction is used to examine pupils. This means that approximately one out of every 12 periods is used in this manner and if the month of March is omitted when the percentage is very low, the proportion of time used would be considerably higher. This situation is probably not serious providing the examinations

can justify themselves as learning exercises, but if they are only to inform the instructor how much information the pupil has acquired, it would seem as though at least a proportion of the time could be spent in a more profitable manner.

According to Bulletin 8 of the Department of Public Instruction, page 20, it is recommended that during the first semester six periods a week should be spent in the classroom and four in the laboratory, demonstration, or on field trips. During the second semester it recommends that two periods a week be used for laboratory, demonstration, and field trips and no time be spent in the classroom on poultry. Apparently, the authors of this Bulletin had in mind that if both semesters are to be considered, that about 50 per cent of the time should be spent in classroom instruction and 50 per cent in the laboratory, demonstrations, or field trips. There was nothing in the diaries of the teachers to indicate whether the instructors were teaching a first or second semester work, but from the time of the year one would naturally suppose that they were using second semester instruction. From Table VI it can be seen that a total of 76.3 per cent of the teaching time was spent in the classroom and 23.6 per cent of the time was spent in laboratories or on field trips. This differs very materially from the recommended 60 per cent in the classroom and 40 per cent in laboratories for the first semester and 100 per cent in laboratories for the second semester or a combination of the two on a 50-50 basis. It might almost seem as if it would be necessary either to

revise the suggested plan as presented in this Bulletin or to make practical suggestions to teachers which would enable them to do more effective laboratory teaching in Poultry Husbandry. It should be noted that in the suggested plan in Bulletin 8, that demonstrations are listed with laboratory and field trips. It is evident that the authors had in mind field demonstrations. In our data, demonstrations are classified as a classroom exercise since our definitions clearly make it such. There is a separate class for field demonstrations, but they are not found in any of the methods used by the teachers of Poultry Husbandry.

Monetary Side of Secondary Vocational Projects in Pennsylvania

"Some teachers may hold that financial returns are of little importance in judging the value of project work. They are not the main consideration but who wants to stake his future on a record of consistant failure? In the long run, the account must show heavily on the credit side if our educational value is to be considered worth what it costs."(6)

In a previous chapter the ideals were set up that the most successful projects in Pennsylvania from a monetary standpoint would be those that would have the following characteristics: Namely, that the products from project should be of high quality, perishable and bulky. The reason for this is that we are in the middle of a densely populated

(6) Taken from the Vocational Agricultural News Letter issued by the Wisconsin State Board of Vocational Education.

district where a premium will be paid for first class products that are fresh, and the bulkier the product the higher the freight rate will be on shipped in produce and therefore a higher rate must be paid for it.

From the data secured from diaries of the teachers, there is only an indication as to the varieties of projects selected, but an attempt will be made to see to what extent the projects meet these requirements.

The projects listed are bees, baby beef, sheep, calf, dairy, swine, fruit, tomato, garden, tobacco, sweet potatoes, capons, poultry, potatoes, and corn. It would seem as if all of these projects would classify well according to a broad interpretation of our criteria. The products with two exceptions certainly should find ready sale on any local market. Except for swine, baby beef, tobacco, and corn they are fairly bulky and perishable.

This brings us, therefore, to a consideration of the regional fitness of the projects mentioned. As the data were tabulated there is no indication as to where these projects were conducted. There can, however, be no criticism as to the regional fitness anywhere in Pennsylvania on such projects as bees, sheep, calf, dairy, fruit, garden, poultry, and potatoes.

There is some question in the writer's mind in regard to baby beef. Because of the fact that a premium must be paid for animals suitable to be made into this kind of meat, it is necessary for the feeder to secure a price higher than

the general market if it is to pay him for his effort. At the present time, about the only profitable outlet for baby beef is through the sale conducted by the Farm Products Show each year at Harrisburg which is open only to 4-H club members. Therefore, probably the only region where baby beef projects can be carried on are within the immediate vicinity of Harrisburg and even here they are not advisable for vocational projects. To some extent the same condition applies to swine. In the southern teir counties where an abundance of corn is raised swine projects have a place, while in sections where by means of a good curb market fresh county dressed pork will bring a premium, swine have been found profitable. It is difficult to see how they can be commercially profitable in otherplaces. Tobacco, of course, must be used as a project only where tobacco is of importance as a local crop. Since vocational students are generally interested in the money aspect of their projects it is hard to conceive of a boy selecting a project unless he has looked into this side of it and from the data submitted it would seem as though the projects selected would be money makers if they were large enough. This last point is of exceptional importance since it is through the project that the student develops the all important "managerial ability".

We shall now examine the methods used by teachers in their project instruction. The methods used can be devided arbitrarily into three classifications. Namely, project discussion in classroom, personal conferences, and project

supervision. Table VII gives the time spent in the classroom apparently on project instruction. From this table it will be seen that the classroom work runs along about in the same amount each month until June when there is a decided drop due probably to the fact that many schools have dismissed for the summer.

Table VIII gives the time spent in personal conference on projects. There does not seem to be any regular amount of time from month to month that is spent in this manner. An interesting item is the fact that during March 2300 minutes have been spent in personal conference on project plans. This is more than twice as much as is spent in either February or April when 1020 and 940 minutes are spent respectively. This indicates that March is the time of the year when a greater proportion of pupils are making plans for their summer's project work. March also is the heaviest month for classroom instruction on project.

Table VII

Classroom Work on Projects

	Feb.	March	April	May	June
Project Study	240	2410	2210	1770	670
Project Work	930	1020	80		
Starting plants for projects	30				
Testing soil for projects	20				
Project Stores	60				
Project Supervision	60		90	170	150
Project Reports	560	90			
Project Records		50			
Project Books					180
Project Plans	1220	1220	1250	450	
Poultry Project	450	870			
Dairy Project					
TOTALS	3570	5660	3670	2390	1000

Table VIII

Time Spent in Personal Conference on Projects

	Feb.	March	April	May	June
Bees		20			
Calf		90			
Project Supervision			580	350	5760
Capons					
Farm Accounts		40			
Baby Beef					
Project Reports	350				
Project Work	200	1490	20	320	180
Poultry				130	
Swine			10		
Tomato					
Gardens					
Project Study	200	750	680	210	50
Plans	1020	2300	940	610	
Tobacco					
Sweet Potatoes					
TOTALS	1770	4690	2230	1620	5990

The time listed for project supervision is shown in Table IX. From this table it will be seen that the teachers who submitted their diaries spent very little or no time during the months of February and March on project supervision and April only approximately a half as much time as is spent in classroom instruction and personal conference combined. There is, however, a decided rise in the amount of time spent in May, and in June there is nearly twice as much time consumed in project supervision as in the other four months combined. These data indicate that not until June does project supervision become a serious time consumer.

Graph III shows the amount of time consumed in each of these activities. It does not seem as though further comment need be made on this graph except to point out again that apparently due to some factors such as the fact that the students projects have not gotten under way or because of poor roads, that very little time is spent in the actual supervision phase of project work until May and June.

Table IX

Time Used in Project Supervision

	Feb.	March	April	May	June
Bees	590			590	860
Potatoes				1800	1820
Caponizing					420
Farm Accounts					110
Baby Beef				240	620
Sheep					80
Project Wood		330	150	290	
Poultry	30		350	100	1860
Swine			60	170	1350
Tomato				30	
Garden Project			40	120	1020
Supervision	370	180	2640	6680	29420
Project Record		20			
Plans		40			
Tobacco					30
Sweet Potato					60
TOTALS	990	570	3240	10020	37650

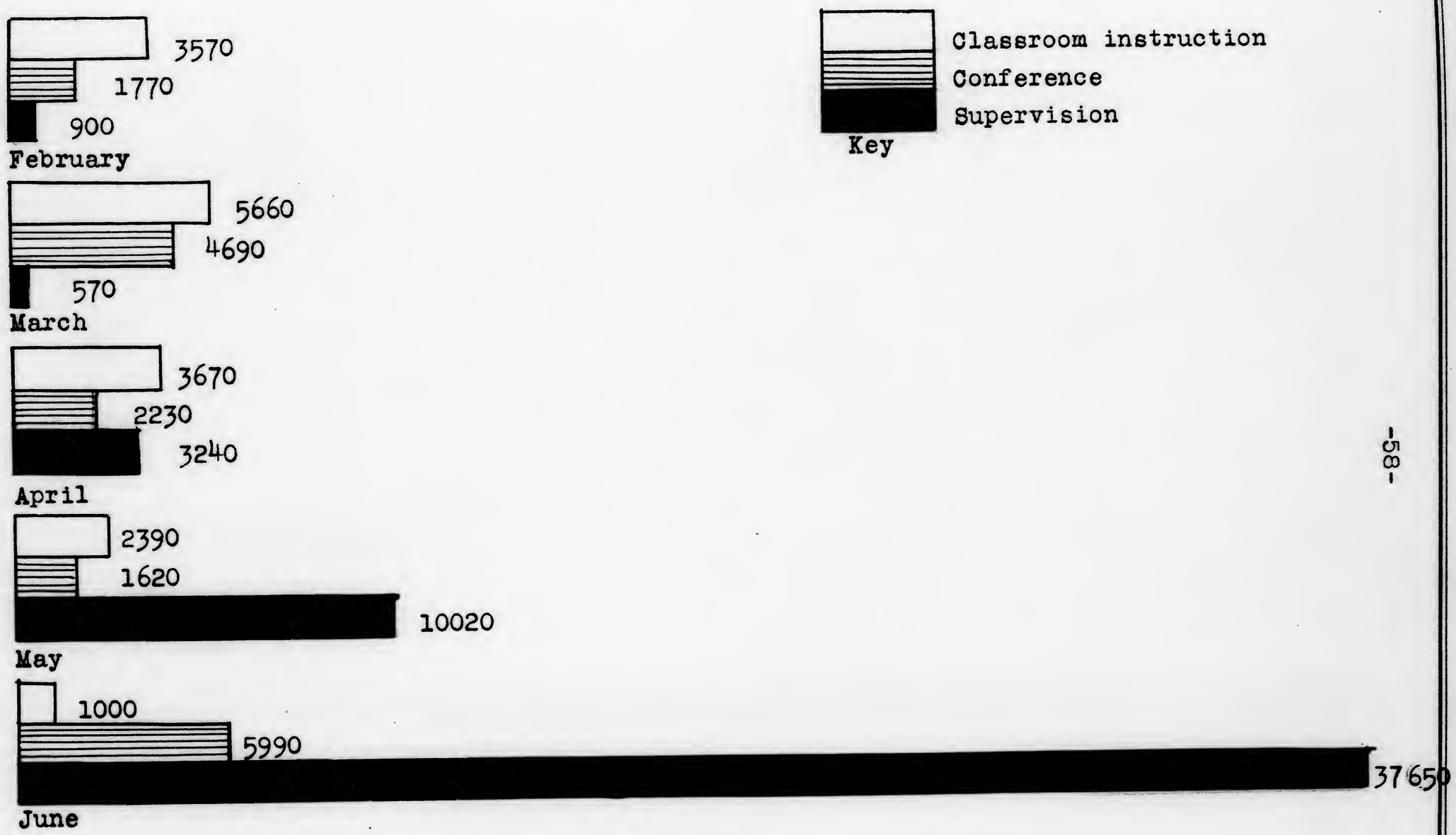

Figure III

Time Distribution by Method for Project Work

Very little data was secured on the junior project. During no month was there more than six teachers spending any time on this phase of vocational education. It would seem, therefore, that Mr. John Frasier Howe's conclusion that the "supervisor does not have time to devote to junior project work," is correct.(7)

Since it apparently is not a major factor from the standpoint of monetary value to the pupil nor a time consumer it will not be discussed further here.

Social Aspect of the Vocational Teachers Job

We have discussed the fact that in the open country there is a need for a wholesome social life and said that it offered a challenge to men and women working with rural youth to give the best they have to further this end, so that boys and girls in the less populated districts may have some of the same opportunities that urban young people enjoy. To determine to what extent Pennsylvania Smith Hughes teachers are participating in activities outside of their regularly scheduled classes, all of the time spent outside the classroom was tabulated. The data was found to fall naturally into 12 groups, namely: 1. Repair and building around school, 2. Securing teaching material, 3. Community fairs, judging contests, exhibits, 4. Service clubs, scouts,

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(7) Howe, J. F., An analysis of the difficulties encountered by teachers of vocational agriculture in carrying out junior project work in Pennsylvania. Pennsylvania State College, 1930, pp 40.

Parents and Teachers Associations, 5. Athletics, glee clubs, literary clubs, school parties, 6. Short course, 7. Farm meetings, 8, Aid to adult farmers, 9. School routine, 10. Newspaper work (not connected with the school), 11. Religious, 12. Professional improvement.

It will readily be seen that not all of these activities directly have a bearing on the social life of the community but there is enough connection so that they can be discussed here. The amount of time spent in giving the service, in preparation and the time an auto was used in the work, was tabulated by months and these data will be found in the appendix. In this discussion, however, the total time spent during the five months will be measured. The reason for this is that it was felt that by this means we would get an accurate idea of the relative importance of each as a time consumer. Graph IV shows the average amount of time the 32 teachers spent on each activity.

[redacted] 182

Writing newspaper articles

[redacted] 262

Securing teaching material

[redacted] 400

Farm meetings

[redacted] 441

Short courses

[redacted] 531

Religious activities

[redacted] 816

Professional improvement

[redacted] 916

Work around buildings

[redacted] 1017

Aid to adult farmers

[redacted] 1350

Assistance to service clubs, scouts, etc.

[redacted] 1450

Community fairs, judging contests

[redacted] 4369

School Routine

[redacted] 5514

Activities connected with athletics, glee clubs, dramatics, music, school parties, and literary

Figure 4

Average Time Per Teacher Spent on

Extra Curricular Activities

To anyone who has been connected with vocational agriculture in Pennsylvania it is not surprising to find one of the major time consumers has been those activities connected with athletics, glee clubs, literary, and school parties. From the work sheets of the teachers it was found that they acted as coaches, business managers, ticket takers, referees, and chaperones. In fact, one could not help but grasp the fact that if it were not for the vocational teachers these activities could not continue on the present basis, and other arrangements would have to be made by the school board if they are to continue. With one exception, a county supervisor, all of the teachers studied, spent some time in this work. The range of participation was from 560 to 12,325 minutes with an average of 5514 minutes or 91.9 hours a teacher. If it can be assumed that this time is divided equally between the five months, then the average amount of time would amount to 212.03 month or 81 minutes a day. As was stated, within the group a wide variation of emphasis was found. To some teachers this class of activity means little as a time consumer, to others it must be a real burden. Since one of the greatest problems to rural youth is the question of health, the athletic program of a Smith Hughes teacher probably justifies itself provided he enters into it fully realizing that it will take valuable time which might be spent in other activities, such as project supervision more directly connected with the teaching of vocational agriculture.

The next item of importance as a time consumer was the time spent in school routine. This includes time used in making out reports, attending school board meetings and other items such as averaging and recording grades. Here again we find a great range. One teacher recorded only 30 minutes while another reported 23,880. In this connection it might be said that the teacher reporting only 30 minutes probably listed the time spent in this work in some way that we could not recognize as school routine, while the teacher reporting 23,880 was the director of one of the best vocational schools in Pennsylvania. The average time consumed per day was 33.6 minutes. This does not seem serious but in this calculation Saturdays were counted in, which makes it seem as though less time was spent than actually was. If school routine is a burden then two remedies present themselves. The first one would be for the teacher himself to so systematize his work so that he will eliminate all waste, and the second would be for the State Department of Public Instruction to make their reports as simple and concise as is consistant with good office procedure.

Time spent with service clubs, scouts, P. T. A., and community shows, judging contests, and fairs will be discussed together, although they are tabulated separately. Combined, they total 89,615 minutes or an average per teacher for the five months of 2800 minutes of 107.7 minutes per day. This is the group of activities where the vocational teacher is most apt to be of service to his community outside

of his school. It is here that he can find his place as a member of a service club, as a scout master, and as a member of community betterment committees. We find the range from 410 to 18,105 minutes. The work sheets indicated that there was an extremely wide variation of interest in these activities. Boy scout work was the one most often mentioned. Indeed, in the case of the teacher who spent the most time on this phase of the work, it was hard to distinguish whether he was more interested in social work or in teaching vocational agriculture.

It was found that all but four of the teachers reported that they were allowing considerable time to giving aid to adult farmers. The average time for the five months was 1017 and the range is from 0 to 4440 minutes. While it is probably necessary for the vocational teacher to do some of this work it should be only incidental. The intent and purpose of the Smith Hughes Law was to promote systematic classroom instruction and under Pennsylvania conditions where there is a county agent available for all adult farmers, it is hard to justify the use of much of the teachers time for this procedure.

It was a surprise to the writer to find nine out of the 32 teachers spent no time on professional improvement. From the work sheets it would seem as though most of the time spent in professional improvement consisted in attending large teachers' meetings at some distance from the school. One could not help but feel that except in rare instances was

there any systematic thought given to a program of this kind among the teachers. The range of time in this activity was from 0 to 3200 minutes.

Just half of the teachers studied, listed spending any time on short courses. In a number of surveys it has been found that one can count on one boy or girl from the age of 10 to 20 on each farm in the community. There are unquestionably in every rural situation boys that could be reached by a short unit course if it were sufficiently advertised so that it would be well known. It would seem as though more vocational teachers could find time for this activity. Even among those who had this phase of the work on their program, comparatively little time was spent on it as can be seen by the work sheets, even though the months which we are studying are the months naturally in which the short unit course would fall. The range of those teachers who used the short unit course was from 150 to 2520 with an average of only 441 during the five months.

A feature of vocational work that might have a bearing on promoting short courses and be a means of drawing more students to the school is newspaper publicity. Only half of the teachers reported any time on this work. Yet the small town or country newspaper is anxious to secure material of local interest. Undoubtedly, some items were put into the paper without the teacher doing anything about it. Still there are many good stories that only need writing up to be of exceeding interest to the patrons of the school. These

would have the tendency to promote a sense of pride in the school and will win for the vocational teacher a larger place in the community. From the experience gained in watching the publicity put out by county agents, the writer feels that most rural workers do not take advantage of newspapers. There are probably two very good reasons for this fact. First, they have not had sufficient training in college to make them appreciate the fact that they can write acceptable articles if they will. Second, that they are busy with other things which seem to be more important at the minute and neglect this phase of the work. The range of those spending any time on newspaper work during the five months is 20 minutes to 2610 minutes.

From the data gathered it was impossible to give an accurate picture of the teacher as a religious leader in his community. The reason for this is because the teachers were asked only to report six days a week and naturally the greatest amount of this kind of work would be done on Sunday. There is enough data, though, to indicate that the teachers are in many instances taking a real leadership. Eighteen out of the group definitely were doing some religious work during the week. The range was from 20 to 4195 minutes with an average of 513 minutes.

Farm meetings were attended by 21 of the 32 teachers. This activity, it would seem, should be encouraged for the following reasons. It is an excellent time to make friends with some of the patrons of the school. Second, it gives

the teacher an insight into what the farmers of the community think their problems are. Lastly, agriculture is changing so rapidly that many of the newest things fail to get into the agricultural literature as soon as they should. Many of these meetings are held by specialists in their line who could be of assistance in bringing the latest discoveries in agriculture to the teacher. The range ran between 20 and 1870 with an average of 400.

Only four of the 32 teachers failed to report that it was necessary for them to spend some time in repair work or in building new features for their building. The range on this item was not as wide as in other items discussed and ran much more regularly, being from 45 to 3060 minutes with an average of 914.

As naturally could be expected, there was a wide variation in types of activities taken part in by the teachers. There is a wide variation in ability, interest, and need which would bring this about. When one studies the total time spent in all activities it will be found that the range runs from 2720 minutes to 34,080. It was interesting to note, however, that in the high quartile are three men who have recently been promoted to county supervisors and that from the lower quartile several have disappeared from the vocational ranks. The average amount of time spent in these activities per day was 132 minutes or 2.2 hours. This means that take the group as a whole they spend 2.2 hours every day after completing their instruction and preparation for the

next day. The work done from a social aspect is important, but the question raised here is whether a teacher can do his best work on his teaching and still keep up the other activities he apparently thinks are part of his job and not have his health suffer. It is the writer's opinion from the fact that so little time is spent on professional improvement that the teachers themselves feel the strain and are not doing what they might to improve their store of agricultural knowledge and better their teaching technique.

Summary

Our data indicates that the vocational teachers are striving to meet the needs of their communities by performing a multiplicity of jobs. To some extent they are following seasonal sequence, but they are not keeping to the division of time of classroom and laboratory work as suggested by the Department of Public Instruction. Project work met the requirements of having monetary value and fitted into the regional fitness of Pennsylvania agriculture. Project supervision does not conflict with extra curricular activities until May or June. Pennsylvania vocational teachers are playing a big part in community activities outside their regular curricular work. However, very little or no time is being spent by the teachers studied in professional improvement or in newspaper publicity.

Table X

Total Time Spent by Teachers on Various Activities

Teacher No.	3	4	5	6	7	8
Work around Building	480	675	1050		240	5250
Securing mat. for Inst.		2650	1105		470	470
Com. fair, shows Judging Contest	1770	4460		1620	2040	1090
Service Clubs, Scouts, P.T.A.	220	13645	480	1590	180	5270
Ath.,Glee Clubs School parties	2240	1000	11230	9450	9325	6770
Short Course	800		2020	150		1525
Farm Meetings		400	1630	660		645
Aid to Farmers	150	1130	3005	810	100	2150
4-H Club Work		210	815			
School Routine	1510	4280	4825	1240	1980	3035
Newspaper		90		210	130	
Religious		1240				325
Professional Improvement		1210	135	1140	435	
TOTALS	7170	30980	26480	16860	14900	26530

Table X (cont'd)

Teacher No.	9	10	11	12	13	14
Work around Building	300	2965	210	1595	45	210
Securing mat. for Inst.		60		450		
Com. fair, shows Judging Contest	220	1135	8015	240	610	15
Service Clubs, Scouts, P.T.A.	210	810	360	240		3540
Ath.,Glee Clubs School parties	4560	12325	4480	4505	720	4730
Short Course	500	1455	445	300	490	
Farm Meetings		30	440			790
Aid to Farmers	2265	1645	1925	985	2010	720
4-H Club Work						
School Routine	2380	3050	670	3165	360	23880
Newspaper		220	80			1005
Religious		420	4195	120		805
Professional Improvement		3200		4260		1005
TOTALS	10435	27315	20820	15880	4235	36700

Table X (cont'd)

Teacher No.	15	16	17	19	20	21
Work around Building	850	1365	2550	285	320	1590
Securing mat. for inst.		420			180	
Com. fair, shows Judging Contest	750	2700		840	195	1640
Service Clubs, Scouts, P.T.A.	3095	2670	140	335	540	
Ath.,Glee Clubs School parties	4570	6140	1745	1965	690	7600
Short Course	25	870	900			
Farm Meetings	95	1870		275	440	
Aid to Farmers	1055		140	2200	270	320
4-H Club Work						
School Routine	620	7710	18280	995	7755	3490
Newspaper		470		90	125	180
Religious	1215	1110		180		
Professional Improvement	120	720	300	1325	1185	550
TOTALS	12395	26045	25165	8490	11700	15370

Table X (cont'd)

Teacher No.	22	24	25	26	27	28
Work around Building		870	980	310	3060	1350
Securing mat. for inst.			330	50	480	
Com. fair, shows Judging Contest	4180	3395	2755		1610	420
Service Clubs, Scouts, P.T.A.	2945	1220	0	140	1080	280
Ath.,Glee Clubs School parties	1325	18030	6220	11735	9515	2770
Short Course		300	925			
Farm Meetings		1350	165	40	950	405
Aid to Farmers		1090	430	330		
4-H Club Work						
School Routine	2165	3885	3780	2425	12965	270
Newspaper		380				20
Religious	1135	795	360			60
Professional Improvement		1395	955	950	2470	
TOTALS	11750	32710	16900	15980	34080	5820

Table X (cont'd)

Teacher No.	30	32	34	36	37
Work around Building	630	515			480
Securing mat. for inst.	180	420	60		
Com. fair, shows Judging Contest				3340	285
Service Clubs, Scouts, P.T.A.	240	850	370	990	910
Ath.,Glee Clubs School parties	8270	4760	2400	4110	1935
Short Course				2520	
Farm Meetings	940	90	540	150	
Aid to Farmers	760	485	2140	585	730
4-H Club Work					
School Routine	2710	5635		10935	375
Newspaper		185			
Religious	720	2025			
Professional Improvement		100	600	2190	1305
TOTALS	14450	15065	6110	24820	6020

Table X (cont'd)

Teacher No.	38	40	41	Ave. Teacher
Work around Building	1090			914
Securing mat. for inst.	1085			262
Com. fair, shows Judging Contests	2420		660	1450
Service Clubs, Scouts, P.T.A.	590		270	1350
Ath.,Glee Clubs School parties	3940	6750	560	5514
Short Course			900	441
Farm Meetings	900			400
Aid to Farmers	4440	515	180	1017
4-H Club Work				
School Routine	3125	2295	30	4369
Newspaper	2610	60		182
Religious	1590	20	120	513
Professional Improvement	460	120		816
TOTALS	22250	9760	2720	

Chapter IV

Conclusion

Because Smith Hughes Vocational teaching is comparatively new and because of the wide variation in people and situations, there are wide differences in the manner in which teachers are presenting vocational work. It would seem as though this study was made from data presented from enough teachers to be representative of the teaching of vocational agriculture in Pennsylvania at the time the study was made. An attempt was made to analyze the activities of a vocational teacher in line with the four criteria set up, that the vocational teaching must have seasonal sequence, that it must have monetary value in order that managerial ability can be developed, that the method and technique of presenting subject matter is of paramount importance, and lastly, that there is a demand on the teacher to play a part in this social life of the community which he serves.

In view of this criteria the following conclusions are made from the data presented:

1. That the vocational teacher of agriculture perform a multiplicity of jobs both in school and out, calling for ability and training in many fields.

2. The data secured from the Poultry Husbandry course

indicates that the teachers are attempting to follow seasonal sequence. There are, however, striking examples of either lack of appreciation of this method or else loose thinking in the time placement of some of the material used. For instance, the teaching of poultry house illumination during the month with the longest days. It was also found that there is a wide variation in the type of material used. While it is not desirable or practical that all teachers use the same material, it would seem as if there is no agreement among the teachers studied as to what made up a good vocational poultry course.

3. From a study made of the method and technique used in Poultry Husbandry, it was found that the teachers are not following the plan suggested by the Department of Public Instruction in regard to the proportion of time used for classroom work and laboratory. The teachers studied used 76.3 per cent of their teaching time in classroom work and 23.6 per cent in laboratory and field trips against the recommended 50-50 division. The reason for this undoubtedly is lack of laboratory equipment, lack of proper places to take field trips and a dearth of laboratory exercises that a teacher knows about.

4. As far as our data indicated, it would seem as though the project selected fitted into agriculture of Pennsylvania. With only two exceptions they were of a type which if improved methods of agriculture were used, they should be money makers in the region where the project was being carried on.

5. The vocational teachers studied used classroom instruction and personal conference in the schoolroom almost entirely as methods to further their projects during February, March, and April. No drain on time for supervision was indicated until May and June, when a large amount was done. Two reasons might be apparent for the fact. First, the project selected did not become active until spring, and second, that during February, March, and April the teachers were carrying an extremely heavy load of extra curricular activities. If projects selected by the boys were such, that they were active the year round, it would be necessary for more supervision being done during these months.

6. It was found that a large amount of time was spent in extra curricular activities. Many vocational teachers were acting as coaches for athletics, literary societies, class parties, and as scout masters. While no question is raised here as to the value of these activities, it was the feeling of the writer that the time spent on these last activities could have been better spent in some type of work more directly connected with vocational agriculture such as short unit courses. There are many boys in every community which are not being reached by any school. The type of extra curricular activities varied greatly both in time consumed and type showing varying interests and abilities.

7. From the amount of extra curricular work listed by the teachers it must be concluded that they are a real factor in the social life of their community.

8. There was no indication that any great amount of time was spent in professional improvement and that whatever was done along this line consisted in attending large teachers' meetings. This tendency is unfortunate since only through constant contact with the new methods of teaching and agriculture can a vocational teacher expect to give his best to the patrons of this school.

9. Our data indicates that with few exceptions no time is being spent in newspaper publicity. Since more boys could be interested in vocational agriculture and the patrons better informed on what is going on in the school, and thereby become more whole hearted supporters of the school, it is recommended that considerably more time be spent in this activity.

10. After studying the diaries of these 32 teachers, one cannot help but conclude that they are extremely busy men who need help and counsel not only in their curricular work but in their relationships to their communities, so that the extra work thrown on them will not over shadow their real job of teaching vocational agriculture.

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APPENDIX

THE PENNSYLVANIA STATE COLLEGE
SCHOOL OF AGRICULTURE AND EXPERIMENT STATION
STATE COLLEGE, PA.

DEPARTMENT OF RURAL EDUCATION

February 1, 1926

To Teachers of Vocational Agriculture:

This year we have entered upon a serious study of the job of the teacher of vocational agriculture in Pennsylvania. We wish our study to include all phases of the agricultural teacher's activities, both curricular and extra-curricular. The purpose of this study is to secure information which will enable us to include the proper content material in our teacher-training work and to enable us to give the most pertinent helps to the teachers in service. It is important to emphasize in this connection that it is not only the job itself in which we are interested but it is essential that we know the jobs actually performed and the actual time necessary for every performance.

For your convenience we have had printed blank forms on which all of your activities for each day may be recorded, one sheet to be used each day. Specific direction sheets are also prepared so that the records of each teacher will be comparable with those of every other teacher.

We are combining with this another feature which will interest you. We know that every teacher is interested in his professional development and we are anxious to help in every way we can. We have just secured the approval of the graduate school to permit us to enroll teachers of vocational agriculture in research courses in which the local school becomes essentially a research laboratory. You are, therefore, entitled to be enrolled for graduate credit if you complete the work assigned in approved fashion. The complete assignment for the course carrying two hours graduate credit will consist of studying and understanding the definitions and directions for filling out the blanks and the returning to this office blanks completely filled out for each day for 150 consecutive working days.

As we have casually come in contact with agricultural teachers during the past three weeks this study has been explained to them. Without exception these men stated a desire to cooperate. This leads us to believe that where possible every man will be willing to cooperate and take this opportunity to earn some graduate credit. We are sending you, therefore, a pad of blanks sufficient to last you for the full duration of the course.

In case you are not able to do this work please return the pad to us.

Yours very truly,

H. G. Parkinson,
Professor of Agricultural Education.

Agr.Ed. 503 - Research in Agricultural Education. Grad.Cr.2 hrs.

DIRECTIONS
For Filling Blanks In

Research in the Analysis of the Agricultural Teacher's Job

In this research you are given a number and the reports will be considered strictly confidential. Even the tabulator will not know "Who is who" except as he may need to communicate with you to iron out some questions of interpretation. This is strictly a matter of impersonal scientific research.

1. Directions consist of 5 mimeographed pages: 2 of general directions, 2 of definitions, and 1 sheet illustrating how a number of jobs are reported. Be Sure that you are Letter Perfect in your knowledge of these 5 pages. To be of value these records must be accurate and every one must list his work in the same manner.

2. Fill out your blanks daily (6 blanks each week) and mail in the envelop furnished at the end of the week.

3. The three headings on the blank are to be interpreted as including all the work you do.

   a. "Curricular Work" should include all work in, or growing out of, regularly organized classes for which the school holds you responsible. It may include: Classroom work, project supervision, coaching basketball or glee club, individual conferences growing out of class work; in other words, all activities in which you as a teacher come in contact with persons formally enrolled as students under you. Organized short-unit, evening and part-time classes come under this head.

   b. "Extra-curricular Work - Meetings" should include all meetings of 2 or more other persons which you attend, which meetings are not regularly organized as classes under your complete or partial direction as teacher. e.g., Attending meeting of the Grange, speaking before Parent-Teacher Association, attending basketball game which you did not coach, etc.

   c. "Extra-curricular Work - Miscellaneous" should include all work you do not list under the other two heads.

Agr. Ed. 503.

Directions

Research in the Analysis of the Agricultural Eacher's Job

4. Note that the "teacher's time" devoted to each job or activity is essential. The sum of all the work reported in the three columns under this heading is the total working time of the teacher for the day.

5. Under "Method" show how the time spent "with pupils" was used thus: $\frac{30}{\text{Rec.}}$ $\frac{30}{\text{S.St.}}$ $\frac{30}{\text{Lab.}}$ indicates that the 90 minute period with pupils was evenly divided between recitation, supervised study and laboratory. Master the "Definitions" so all will use the same terminology for classroom methods. "Conference", "Discussion", "Dictating", "Coaching", "Chaperoning", "Tutoring", "Refereeing", and similar well-known terms may also be used. There is no need of repeating time under "Method" when only one method was employed.

6. Study the page of illustrative reports carefully and refer to it and these directions and definitions as often as a question arises.

7. Report all work you do for 6 days a week, giving the total working time for each day.

8. The blanks are not accurate unless filled out each day. If they do not come in regularly each week, they are of no value as scientific data. No credit will be given if the reports do not come in regularly each week until 150 reports are received. If you are on a vacation or take a day or more off it is just as important to have the daily reports of "no work" as it is to have reports of busy days.

9. Do not start this work unless you expect to complete it according to the best of your ability - it is a quality assignment which will require only a few minutes each day.

10. The pads cannot be had for two days, therefore we are sending you a week's supply of blanks unpadded. If you want to enroll for this course, fill out one blank and return immediately in the enclosed envelop. When we receive your first day's report, we will take it as a notice that you want to enroll and will mail you a pad of blanks and 25 return envelops.

(Illustrating How Jobs are Reported. This sheet reports 34.4 hrs.)

Teacher No. A Date Feb. 1 1926

Department of Rural Education
State College, Pa.

RESEARCH IN THE ANALYSIS OF THE AGRICULTURAL TEACHER'S JOB

CURRICULAR WORK

No. of Pupils	Job or subject taught; e.g.,Making milk stool, Fertilizing corn, or Project supervised,etc.	Teacher's Time			Method
		With Pupils	In Prep.	On Road	25 65
20	Selecting variety corn	90	60	0	Disc. S.St.
20	Making Lime Sulphur	90	90	0	Lab.
15	Assignment-Veg. Var.	15	60	0	Lec.
15	Cellar Storage Disease	75	90	10	S.St.50,Lab.25
35	Milk Testing	180	60	20	Dem. 90,Lab.90
10	Culling, Evening Class	120	0	20	Drill
20	Lesson preparation	0	120	0	---
3	Project supervision	60	10	40	Dem.Trap Nests
16	Basketball	60	15	0	Coaching
1	Project plans	15	0	0	Conf. (Conf.)
45	Study Hall	45	0	0	Proctoring
		750	505	90	

EXTRA-CURRICULAR WORK - MEETINGS

Place	No. Present	Teacher's Time			Type of Meeting	Type of participation or activity of teacher
		Prep.	Session	On Road		
Juno	125	0	40	20	Basketball	Referree
Zela	50	60	60	15	Grange	Lec.,Winter Spray
Zela	90	0	75	15	Farmers' Coop.	Attendance
Gad	10	30	120	0	Fair Com.	Chairman
		90	295	50		

EXTRA-CURRICULAR WORK - MISCELLANEOUS

For whom	Teacher's Time			Type of Service
	Prep.	Giving Service	On Road	
John Doe	0	10	0	Advised use of a mash for laying hens
John Doe	10	45	10	Helped him plan his garden
Boy Scouts	30	0	0	Planning a forest hike
Local Paper	180	0	0	Writing article on Pruning Grapes
	220	55	10	

Definitions

Recitation: (Rec.) Any classroom exercise upon a prepared assignment of new material.

Note: The exercise may be "question and answer", general discussion, presentation of prepared reports by students, or a combination of these. It may be oral or written.

Laboratory: (Lab.) An exercise in which the student verifies or discovers facts with the aid of apparatus and materials, or manipulates tools and materials, or data in a new or improved manner.

Note: Previous preparation is not essential, for ordinarily the student is given new or important facts and a suggested method of procedure. The discovery of facts is practically a negligible phase of high school laboratory work.

Shop Laboratory: (S. Lab.) Class procedure when time due another subject is given to mechanical work in shop or field.

Note: When properly correlated courses are offered in "Farm Mechanics" this type of class exercise will be very rare, for the mechanical work needed for all the classes in agriculture will be anticipated ans supplied by the class in "Farm Mechanics" As this ideal condition does not always exist, the class studying "Plowing" may be forced to sharpen a plow, make a single-tree and repair a hame-string before it can continue its study.

Field Laboratory: (F. Lab.) Any laboratory exercise outside the school building other than Shop Laboratory.

Supervised Study: (S. St.) Classroom study of printed matter when the teacher is <u>constantly alert,</u> aiding and directing the students in their efforts.

Note: When the teacher makes an assignment and then goes about other duties, reading, keeping order in the classroom, writing, etc., the time is devoted to "study" and not "Supervised Study".

Demonstration: (Dem.)
A class exercise in which the teacher or some other skilled person teaches by explaining the various steps of a job while performing it in full view of the entire class.

Note: When the students give a demonstration before the school or community, etc., the exercise is practice for the students, as they have previously learned the job, and should be recorded as "Drill".

Field Demonstration: (F. Dem.)
Any demonstration that takes the class out of the school building.

Observation: (Obs.)
A class exercise devoted to systematic inspection or seeing away from the school building.

Note: This is not a teaching exercise but one for collecting notes and facts upon which to base subsequent teaching. Observation is always a "Survey" of something in so far as collecting data is concerned. "Survey of X. Y. or Z" is a "subject" and the class time devoted to it is divided among the various forms of class exercises, such as: Obs., Lab., S.St., etc.

Scoring: (Sc.)
Systematic judging or measuring according to an ideal standard.

Note: Scoring may possibly be twisted into a subject for a classroom recitation, lecture or supervised study, but this is seldom justifiable in a vocational agricultural class. All that needs to be taught about scoring is best done with the objects to be scored at hand. Classroom instruction in breeds and types or characteristics should be listed as such and not study of the score card, even if the score card is used as the text reference.

Lecture: (Lec.)
A form of classroom procedure where the teacher tells the class facts, which facts are especially organized by the teacher for that purpose.

Note: A lecture is formal and should not be called such unless it consumes fifteen minutes or more. The lecture has little place in teaching high school agriculture.

Review: (Rev.) Any classroom exercise upon material previously presented in class.

Note: The purpose of a review is to clear up any hazy or erroneous ideas of the students and make sure that they see the principles learned in their true proportions and relations, and thereby strengthen their retention powers. A review differs from an examination in that a review organizes and reteaches.

Drill: Practice in the use of previously obtained information or ability.

Note: Drill is essential if the student is to retain what he learns. Drill is also necessary for the development of skill.

Field Drill: (F. D.) Any "drill" which takes the class out of the school building.

Examination: (Exam.) Any "quiz" or "test" for the purpose of scoring students' information.

THE PENNSYLVANIA STATE COLLEGE
SCHOOL OF AGRICULTURE AND EXPERIMENT STATION
STATE COLLEGE, PA.

DEPARTMENT OF RURAL EDUCATION

February 16, 1926

Vocational Supervisors of Agriculture:

Over thirty men have enrolled in Agricultural Education 503. It is not too late to add your name to the list. The more we have who are able to complete this work, the more valuable it will be to you and to this department.

An extract from one of the letters in regard to this course is as follows: "I think that this is a splendid idea. I would like to keep just such a report for 365 days to determine just how many hours 'John Doe' works and at the same time find out the important thing, HOW EFFICIENT HE IS."

Naturally there have been some questions as to the interpretations of certain points, and the following answers the questions to date:

1. Regular meeting of vocational clubs either during school hours or after school should be listed as "Curricular Work".

2. Health Exercise is a Curricular activity, and the method used should be "drill".

3. Making reports for Harrisburg, business letter writing and all office activities should be listed under the "Extra Curricular and giving service" unless the activity is in preparation of some lesson or meeting.

4. Teaching a Sunday School class or attending Church on Sunday can not be listed as we are only asking for six reports a week. Preparation on week days for Sunday work may be listed under "Extra Curricular".

5. An abstract of each teacher's report will be available at the completion of the course. Tabulations will be made by number as names are strictly confidential.

6. Several supervisors have asked us to check the time reported on the road with the miles reported to Harrisburg. This will enable us to make a study of the difficulty and cost of travel in various parts of the state.

7. In case any one has his Master's Degree, this work carries credit towards a Ph.D.

8. Chapel work should be reported as "Curricular Work".

9. It will not be necessary to sign the reports as they are numbered.

Sincerely yours,

C. Everett Myers
Professor of Agricultural Education.

Turbotville, Penn'a.
June 22, 1926.

Mr. H. G. Parkinson,
Professor of Ag. Ed.
Pennsylvania State College,
State College, Penn'a.

Dear Mr. Parkinson,

I have your letter of the 21st. and wish to say in answer to it, that I will be glad to continue with the next set of blanks.

This piece of work has been quite worth while to me in my work, and I have really got more out of it than I had any idea of when it was begun.

There are a few things which I have not been quite sure about recording.

Should projects visits be recorded as curricular work?

Should cleaning, repairing, oiling, etc. of car be recorded as extra curricular work?

Should work in own garden be included in this work?

These are some of the things which have come up during the summer months. If there are any other changes which would be of value in the way which I have been filling out my blanks I would be glad if you would make mention of them.

Very truly yours,

Harry A. Everett

Teacher No._____ Date April 1st, 1926

DEPARTMENT OF RURAL EDUCATION

STATE COLLEGE, PA.

Research in the Analysis of the Agricultural Teacher's Job

No. 14

CURRICULAR WORK

No. of Pupils	Job or Subject Taught; e. g., Making Milk Stool, Fertilizing Corn, or Project Supervised, Etc.	TEACHER'S TIME			METHOD
		With Pupils	In Preparation	On Road	
25	Action of Water	40	10		Rec.
25	Project plans	80			15 Lect. 65 S.St.
10	Gravity Separators	40	15		Rec.
3	Cream Tests	20			Lab.
5	Shop Repairs	10			
2	Project plans	50			30 S.St. 20 Disc.

EXTRA-CURRICULAR WORK—MEETINGS

PLACE	No. Present	TEACHER'S TIME			Type of Meeting	Type of Participation or Activity of Teacher
		Preparation	Session	On Road		
Brookville	45		80	20	Kiwanis	Attend.
Roseville	35		160	20	Grange	" and speaker.

EXTRA-CURRICULAR WORK—MISCELLANEOUS

FOR WHOM	TEACHER'S TIME			TYPE OF SERVICE
	Preparation	Giving Service	On Road	
Tri-Co.League		30		Conf. Rel.to Sykes-Beechwoods game.
Local Papers		20		Meeting with reporters.
Senior Class		30		Plans for commencement.
School	✓	105		Office work,reports ,etc.

Total Hours for Day 12.

-90-

Wheat-Culture

MAR 1926

TEACHER	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	TOTAL
Number Students					25				9							15				24					14																87
T. With Students					18,				32							8				5					4																67
Time Prep.					3				20							1				6																				30
Time on Road																				12																				12
Rec.									5											1²																				6²
S. Study					3				20																																23
Lec.																																									12
Lab.					10															2²																				
Shop																																									
Disc.					3																																				3
Dem.																																									
Field Trip }																																									
Review									2											1																				3
Assign.					2																																				2
Drill.																																									
Exam.									5																																5
Practice																																									
Proctor																																									
Obser.																																									
Scoring																																									
Coaching																																									
Referee																																									
Attend.																																									
Trial																8									4																12
TOTAL					18				32							8				5					4																67

THE PENNSYLVANIA STATE COLLEGE

Division of Agricultural Extension — State College, Pennsylvania — Agricultural Club Work Department

RURAL YOUTH SURVEY RECORD

A. GENERAL AND VOCATIONAL

1. Name---------- Age-------- Post Office---------R.D.--------
2. Do you live on a farm?--- --------General type?----------Specialized?---------- (dairy, poultry, etc.) Size of farm----------acres. Chief sources of income?----------Do you live on a stone or paved road?----------If not, how far off such paved roads?---------- miles.
3. Grade in school?--- --------Future school plans?---------- Years completed if not now in school?---------- Reasons for leaving school ----------
4. What occupation would you like to follow?----------How do you expect to get training and experience in preparation for that occupation? ----------
5. Are you, or have you been, a 4-H club member in agriculture or home economics?---------- How many years?--------Are you, or have you ever been, a student in a vocational high school or department?--------
6. Do you want to be a farmer?----------If so, what kind of farming, general, poultry, dairy, fruit, etc.? ----------How much do you estimate would be required to start?$----------.

B. ECOMOMIC

7. What possessions do you have and what is their value?
   a. Animals----------Value $----------
   b. Equipment---------- (Auto, Motorcycle, etc.) ----------Value $----------
   c. Other property----- ---------- ------ Value $----------
   d. Do you have a bank account?----------.
8. What are your sources of spending money?
   a. From farm enterprises?----------
   b. From non-farm enterprises? ---------- (work on roads, etc.)
   c. Provided by parents? ----------
9. How much money did you personally spend within the past year?
   a. For clothes? $----------
   b. Movies? $----------
   c. Other pleasures? $----------
   d. On auto or other property? $----------
   e. Other Expenses? $ --- ----------
10. What things would you like to do and cannot, or what things would you like to have and cannot, because of lack of funds? --- ----------
11. How much per year would be required to enable you to do those things, or to have those things which are not available to you now? $----------How do you propose to secure that money?---------- ----------

12. How much spare time do you have when you can do things for yourself?
    a. Average number of hours per day, in rush seasons? ----------
    b. Average number of hours per day, in slack seasons? ----------
    c. Average number of hours per day, during the year? ----------

C. SOCIAL

13. To what organizations do you belong?
    a. Church ----------
    b. Sunday School ----------
    c. 4-H club ----------
    d. Grange ----------
    e. School clubs ----------
    f. Scouts ----------
    g. Camp fire ----------
    h. Others ----------

14. Is there enough social activity in your community to meet your needs? ---------- (Not only recreational, but literary, musical, dramatic, or other types of programs are considered as "social" activities.)

15. Which organizations meet your social needs? ---------- Which organizations exist in your community, but fail to provide for your social needs? ----------

16. How many social events do you attend in the course of a year?
    a. Parties ----------
    b. Picnics ----------
    c. Vacation trips ----------
    d. Movies ----------
    e. Dances ----------
    f. Athletic events ----------
    g. Visits by auto to friends or relatives ----------
    h. Grange meetings ----------
    i. 4-H club meetings ----------
    j. Church ----------
    k. Sunday School ----------
    l. Entertainments, plays ----------
    m. Scouts ----------
    n. Other meetings, fairs ----------

17. Do you belong to a band, orchestra, chorus or choir? ---------- Which organization? ----------
    What musical instrument do you play? ----------.

18. Do you read books? ---------- How many did you read last year? ---------- What magazines do you read? ---------- What farm papers do you read? ----------
    What kind of reading do you like best? (Novels, history, adventure, etc.) ----------.

D. HEALTH

19. What is your height? ----------feet----------inches. Weight? ---------- lbs.

20. Have you been ill during the past year? ---------- Name of illness? ----------

21. How many days have you lost from normal activities during the past year because of illness? ----------.

22. Do you have physical examinations in your school by doctor or nurse? ----------.
    How many per year? ----------.

23. How far from your home to family doctor? ----------miles. What is the cost of his visit to your home?
    $---------- per visit.

End of Title